

REMARKS

Currently, claims 1, 3-8, 11, 12, 15-30 and 34-36 are pending in the application, of which claims 15-21 are withdrawn from further consideration. Accordingly, claims 1, 3-8, 11, 12, 22-30 and 34-36 are currently active in this application, of which claims 1, 22 and 29 are independent.

In view of the following Remarks, Applicant respectfully requests reconsideration and withdrawal of the rejections for the reasons discussed below.

Rejection of Claims under 35 U.S.C. §112, First Paragraph

Claims 22-27 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. Particularly, the Examiner stated that the specification, drawings and claims as originally filed do not provide support for “a first light guiding plate adjoining the light source to induce the light beam from the light source in a first horizontal direction”, “a second light guiding plate adjoining the first light guiding plate to induce the light beam from the first light guiding plate in a second horizontal direction and having a second pattern for reflecting the light beam vertically toward the display panel” and “wherein the first horizontal direction is substantially perpendicular to the second horizontal direction”. Applicant respectfully traverses this rejection for at least the following reasons.

In this response, independent claim 22 has been amended to delete the new terms “horizontal” and “vertically” because these terms appear to have caused confusion to the Examiner. Amended claim 22 is now identical to what it used to be

except for the changes made for informality correction and the new limitations added in this response. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §112, first paragraph rejection of claims 22-27.

Rejection of Claims under 35 U.S.C. §112, Second Paragraph

Claims 22-27 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite. Particularly, the Examiner asserted that these claims are indefinite as one of ordinary skill in the art cannot ascertain how the first light guiding plate and second light guiding plate with their respective first and second patterns are arranged to produce the result of inducing the light beam in two horizontal directions that are perpendicular each other. Applicant respectfully traverses this rejection for at least the following reasons.

As mentioned above, independent claim 22 has been amended to delete the terms "horizontal" and "vertically" and now identical to what it used to be except for the changes made for informality correction and the new limitations added in this response. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §112, second paragraph rejection of claims 22-27.

Rejection of Claims under 35 U.S.C. §102

Claims 22-27 stand rejected under 35 U.S.C. §102(b) as being anticipated by international publication No. 00/32981 by Sumida, et al. ("Sumida"). Applicant respectfully traverses this rejection at least for the following reasons.

Amended independent claim 22 recites:

"22. A display device, comprising:

...
the transparent surface and a flat surface of the second light guiding plate form a first acute angle ranging between 3.0 degrees to 3.5 degrees and the reflective surface and the flat surface form a second acute angle ranging between 33 degrees to 34 degrees."

In this regard, the Examiner admitted "Sumida et al. do not explicitly teach a first acute angle between the transparent surface a flat surface of the second light guiding plate is in a range of between 3.0 degrees to 3.5 degrees, and a second acute angle between the reflective surface and the flat surface is in a range between 33 degrees to 34 degrees" (Office Action, Page 8).

Thus, it is submitted that claim 22 is patentable over Sumida. Claims 23-27 are dependent from claim 22 and hence would also be patentable at least for the same reason. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §102(b) rejection of claims 22-27.

Rejection of Claims under 35 U.S.C. §103

Claims 1, 3-8, 11, 12, 28-30 and 34-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sumida. Applicant respectfully traverses this rejection for at least the following reasons.

With respect to claims 1, 3-8, 11, 12 and 28, independent claim 1 recites "wherein a first acute angle between the transparent surface and a flat surface of the second light guiding plate is in a range between 3.0 degrees to 3.5 degrees, and a second acute angle between the reflective surface and the flat surface is in a range between 33 degrees to 34 degrees".

In the Office Action, the Examiner admitted that Sumida fails to disclose this claimed feature. Regarding this missing feature, the Examiner took the position that "These claims are prima facie obvious without showing that the claimed ranges achieve unexpected result related to the prior art range" (Office Action, page 8). This assertion is respectfully disagreed with.

First, it is submitted that the claimed ranges are not a mere selection of optimum ranges within a prior art range. As mentioned in the previous response filed on February 24, 2005, according to the cyclic structure described in paragraphs [0405] (Fig. 44) and [501] (Fig. 56) of Sumida, the reflective surface and the flat surface of the light guiding plate form an angel of 45 degrees, which is outside the claimed range (i.e. 33 degrees to 34 degrees). Sumida further discloses that the transparent surface and the flat surface of the light guiding plate form an angle of 3.8 degrees or 1.5 degrees, which is outside the claimed range (i.e. 3.0 degrees to 3.5 degrees). The claimed ranges do not overlap the ranges disclosed in Sumida. Thus, the claimed ranges cannot be a mere selection of optimum ranges within a prior art range.

Second, it is submitted that the claimed ranges achieve unexpected results relative to the ranges of Sumida. The specification describes "When the acute angle α exceeds such range, the light beams incident on to the LCD part through the second pattern part 20 and then are reflected by the LCD panel part 32 can not transmit the second light guiding plate 18." (Page 16, lines 12-14).

The specification further describes "When the acute angle is smaller than 24 degrees or larger than 45 degrees, there occurs a problem in that the light beams out

from the first light guiding plate 12 are not directed toward the lower surface of the second light guiding plate 18, that is, toward the LCD panel part 32" (Page 16, lines 4-7).

Given that the ranges described in Sumida are outside the claimed ranges, the result from Sumida would be substantially different, and the result from the claimed invention would be unexpected relative to the ranges of Sumida.

For this reason, it is submitted that claim 1 is patentable over Sumida. Claims 3-8, 11, 12 and 28 are dependent from claim 1 and hence would also be patentable at least for the same reason.

With respect to claims 29, 30 and 34-36, independent claim 29 recites "wherein the transparent face and a flat surface of the light guiding plate from an angle of about 3.0 degrees to about 3.5 degrees, and the reflective face and the flat surface of the light guiding plate form an angle of about 33 degrees to about 34 degrees." As mentioned above, the claimed ranges are not prima facie obvious from Sumida because, for example, (a) the claimed ranges are not a mere selection of optimum ranges within a prior art range and (b) the claimed ranges achieve unexpected results relative to the ranges of Sumida.

For this reason, it is submitted that claim 29 is patentable over Sumida. Claims 30 and 34-36 are dependent from claim 29 and hence would also be patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of claims 1, 3-8, 11, 12, 28-30 and 34-36.

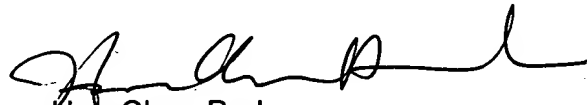
Conclusion

Applicant believes that a full and complete response has been made to the Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully Submitted,



Hae-Chan Park
Reg. No. 50,114

Date: August 3, 2005

McGuireWoods LLP
1750 Tysons Boulevard
Suite 1800
McLean, VA 22102-4215
Tel: 703-712-5365
Fax: 703-712-5280
HCP:WSC/tmk

\\COM522298.1